

REMARKS

Claims 22, 24, 29, 58 and 62 have been amended. Claim 63 has been added. No new matter has been added. Claim 60 has been canceled. Claims 1-21, 36-57 and 59 were previously canceled. Claims 22-35, 58 and 61-63 are currently pending in this application.

Claims 29-35 and 61 stand rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements. Specifically, the Office Action notes that if an aluminum nitride heat-radiating layer is formed completely on an upper surface of a conductive plug, the heat-radiating layer would block an electrical connection between the first plug and a second conductive plug formed on the heat-radiating layer.

Claim 29 has been amended to recite a "method of forming an interconnect structure providing electrical connection for a semiconductor device comprising," *inter alia*, "forming a heat-radiating layer comprising aluminum nitride, wherein said heat-radiating layer is formed on an upper surface portion of said first conductive plug" and "forming an opening in said heat-radiating layer." Therefore, claims 29-35 and 61 are complete and do not omit any essential structural cooperative relationships of elements. For at least these reasons withdrawal of this rejection is respectfully requested.

Claims 22, 23, 26, 28 and 58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Arunachalam et al., U.S. Patent No. 6,139,696 (Arunachalam) in view of Numata, U.S. Patent No. 5,476,817 (Numata). This rejection is respectfully traversed.

Independent claim 22 has been amended to include the limitations of claim 60, which is now canceled. As noted by the Examiner, claim 60 contains allowable subject matter. Accordingly, claim 22 and all claims depending therefrom are in a

condition for allowance. Likewise, independent claim 58 has been amended to include the limitations of claim 62. As noted by the Examiner, claim 62 contains allowable subject matter. Accordingly, claim 58 and all claims depending therefrom are in a condition for allowance.

Claims 24, 25, 60 and 62 are objected to for being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Claim 24 has been rewritten in independent form to include all limitations of the base claim and any intervening claims. Accordingly, claim 24 is in a condition for allowance. Claim 25 depends from claim 22. As discussed above, claim 22 has been amended to include the limitations of claim 60. Further, claim 58 has been amended to include the subject matter of claim 62. Accordingly, Applicant submits that claims 22, 25 and 58 are in a condition for allowance.

Claim 62 has been amended to depend from new claim 63. Applicant respectfully submits that none of the references teach or suggest all limitations of new claim 63. Accordingly, Applicant believes that claims 62 and 63 are in a condition for allowance.

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In view of the above amendment, Applicant respectfully requests allowance of claims 22-35, 58 and 61-63.

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Respectfully submitted,

By 

Thomas J. D'Amico

Registration No.: 28,371

Elizabeth Parsons

Registration No.: 52,499

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant